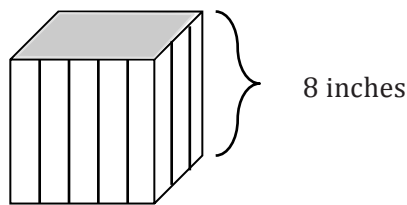


Name: _____ Per: _____ Date: _____

1. Yolanda decides the length of her square vegetable garden will be 17 ft.
 - a. Write an expression for the area of her garden.
 - b. She calculates that the area of the garden is 34 ft^2 . Determine if Yolanda's calculation is correct. Explain.

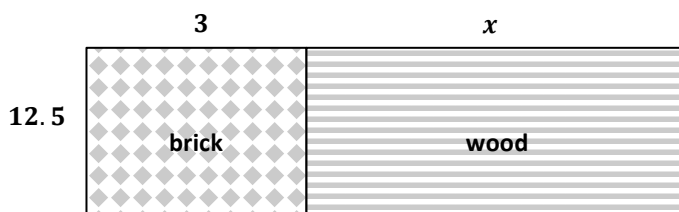
2. Yolanda creates garden cubes to plant flowers. She will fill the cubes with soil and needs to know the amount of soil that will fill each garden cube.



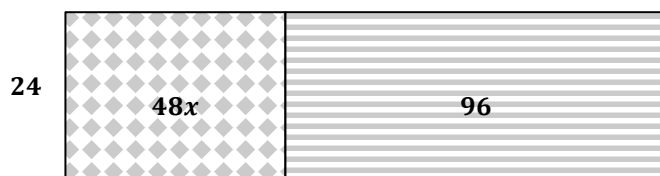
- a. Represent the volume of the garden cube above using a numerical expression.
- b. Evaluate the expression to determine the volume of the garden cube and the amount of soil she will need for each cube.

3. Yolanda is building a patio in her back yard. She is interested in using both brick and wood for the flooring of the patio. Below is the plan she has created for the patio. All measurements are in feet.

- a. Create an expression to represent the area of the patio.



- b. Yolanda's husband develops another plan for the patio because he prefers the patio to be much wider than Yolanda's plan. Determine the length of the brick section and the length of the wood section. Then, use the dimensions to write an expression that represents the area of the entire patio.



4. The landscaper hired for Yolanda's lawn suggests a patio that has the same measure of wood as 4it has brick.



- a. Select all of the expressions below that represents the perimeter of Yolanda's patio. Use substitution to determine that your expressions above are equivalent.
- $4x + x^6$
 - $2(2x) + 6(x)$
 - $2(2x + x + x + x)$
 - $10x$
 - $2(x + 2x + x)$

- b. Use the expression $x + x + 2x + x + x + x + 2x + x$ for the perimeter and $x = 4$ to prove that the perimeter is equal to 40 units.

5. Elena and Jorge have the same problem and find different answers. Determine who is correct.

Elena: $14 + 42 \div 7 + 4^2$

Step 1 $14 + 6 + 4^2$

Step 2 $20 + 4^2$

Step 3 $20 + 16$

Step 4 36

Jorge: $14 + 42 \div 7 + 4^2$

Step 1 $56 \div 7 + 4^2$

Step 2 $8 + 4^2$

Step 3 $8 + 16$

Step 4 24

Circle the first step that has an error and explain the mistake that was made.

6. Sadie is saving her money to buy a new pony, which costs \$650. She earns \$75 per week working at the stables and wonders how many weeks it will take to earn enough for a pony of her own.

- a. Make a table showing the week number, W , and total savings, in dollars, S , in Sadie's savings account.

Number of Weeks												
Total Savings												

- b. Show the relationship between the number of weeks and Sadie's savings by writing an equation that represents the situation.

- c. How many weeks will Sadie have to work to earn enough to buy the pony?

Solve each problem.

- 1) Which choice best represents the expression:

Divide 8 by U

- A. $U \div 8$
B. $8 \div U$

- 2) Which choice best represents the expression:

Find 9 less than D

- A. $D - 9$
B. $9 - D$

- 3) Write as an equation / inequality.
x is greater than or equal to 75.

- 4) Write as an equation / inequality.
x is less than -8.

- 5) Find the value of A.
 $A - 36 = 47$

- 6) Find the value of F.
 $37 + F = 41$

- 7) Find the value of H.
 $10 = H \div 5$

- 8) Find the value of L.
 $40 = 8 \times L$

- 9) Which choice(s) best shows the value of 'e' (or none).
 $2e + 10 < 24$

- A. 9
B. 5
C. 7
D. 6

- 10) Which choice(s) best shows the value of 'e' (or none).
 $5 \times e > 42$

- A. 7
B. 5
C. 8
D. 10

- 11) Express $X > -70$ using the numberline below.



- 12) Write an inequality to express the numberline.

